REMARKS

Claims 1-31, 33, and 34 are pending in the above-referenced application. Claims 7, 14, 16, 18, 20, 21, 26, and 30 are amended, and claim 32 is cancelled. Applicant respectfully requests entry of the claim amendments and reconsideration of claims -31, 33, and 34.

Claim Rejections

Claims 1-3 and 5-34 have been rejected under 35 U.S.C. §102(e) as being anticipated by Banga et al "Optimistic Deltas for WWW Latency Reduction," in Proc. 1997 SENIX Technical Conf., pp. 289-303, Anaheim, CA January, 1997. Claim 4 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Banga in view of Sutcliffe (U.S. Pat. No. 6,253,216).

Independent claim 1 recites a method for updating a configuration page on a user side of an Internet-based configuration system. The method comprises, responsive to the user side receiving a user input that is associated with delta configuration page information available at the user side, retrieving the delta configuration page information without having to contact a server side of the configuration system. Banga teaches the use of deltas in two ways. "First, if both ends of the slow link store the same version of a page, and the server proxy obtains a new copy of the page, it can send a delta to the user's machine. This hopefully will reduce the transfer time on the slow link. Second, if the user's machine does not store the older version, the server proxy can send a potentially obsolete version of the page immediately and request the new version in parallel. It follows this with a delta against the obsolete version if necessary." (page 290

column 1 2nd full paragraph) <u>Banga</u> refers to the "case where both sides share a cached version as a *simple delta*" and the "case where stale data is transferred as an *optimistic delta*." (page 290 column 1 3rd full paragraph, emphasis in the original)

Table 1 of <u>Banga</u> summarizes the seven possible scenarios that occur when a URL is requested by the user's machine. A delta is sent in only two of the seven scenarios, and in both scenarios the server proxy's action includes contacting the content provider. Applicant maintains, for the record, that one of ordinary skill in the art would recognize that the server proxy of <u>Banga</u> is on the server side of the configuration system, and therefore, since in all seven scenarios of <u>Banga</u> the server proxy is contacted, <u>Banga</u> does not teach the limitation of claim 1 of "retrieving the delta configuration page information without having to contact the server side of the configuration system." However, even if, *arguendo*, the server proxy of <u>Banga</u> is considered to not be on the server side, the content provider is clearly on the server side of the configuration system, and the content provider is contacted in both scenarios in which a delta is sent by the server proxy. The two scenarios are discussed in more detail below.

In the first scenario the client proxy does not have a cached copy, the server proxy has a stale cached copy, and the content provider's copy has been modified. The server proxy's action is to "send [the] cached copy upon request, [and] send [the] delta or [a] new copy after [sending a] GET If-Modified-Since [request] to [the] content provider." Here, the delta is sent, if at all, only after the server side of the configuration system is contacted by sending the GET If-Modified-Since request to the content provider. Thus, the sever side must be contacted before the server proxy can know whether to send the delta or send the entire new copy from the content provider. Thus, this scenario of <u>Banga</u>

PA2365US

does not teach the limitation of "retrieving the delta configuration page information without having to contact the server side of the configuration system."

In the second scenario, the client proxy has a cached copy, the server proxy has a stale cached copy, and the content provider's copy has been modified. Here, the server proxy's action is to "send [the] delta or [the] new copy after [the] GET If-Modified-Since [request has been sent] to content provider." Here, the delta is sent, if at all, only after the server side of the configuration system is contacted by sending the GET If-Modified-Since request to the content provider. Thus, the server side must be contacted before the server proxy can know whether to send the delta or send the entire new copy from the content provider.

Applicant notes that Banga provides a variant of this second scenario in which the server proxy not only has a newer version of the cached copy held by the client proxy, but also stores the same version as is held by the client proxy. (page 295 2nd column 3rd full paragraph) In this variant, the server proxy responds to a request for the page by sending the delta between the two stored versions. If the newer version held by the server proxy is out of date, the server proxy contacts the content provider and subsequently a second delta is sent. On the other hand, if the newer version held by the server proxy is not out of date, the server proxy "sends an If-modified-since request to the content provider, verifies that its copy is actually current and sends a null delta to the client" (page 295 2nd column 1st full paragraph). In either case, the content provider on the server side is contacted. Thus, the second scenario of Banga also does not teach the limitation of "retrieving the delta configuration page information without having to contact the server side of the configuration system."

Since all of the alternative scenarios that retrieve delta information also include contacting the content provider, Banga cannot anticipate claim 1. Applicant therefore requests that the Examiner withdraw the rejections of claim 1, and claims 2, 3, 5, 6, 22 and 23 depending therefrom, under 35 U.S.C. § 102(e).

Applicant also notes the further patentability of some of the dependent claims that depend from claim 1. Specifically, claim 3 recites the further limitation that "the delta configuration page information embodies preprocessed configuration engine computations that are responsive to the user input." The present application makes clear that "preprocessed configuration engine computations that are responsive to the user input" are computations that would be performed in response to the user input, but is prospectively determined before the user input is received so that the computation does not have to be performed at the time the user input is received. For example, "[i]n one embodiment ... the [preprocessed] information is stored and indexed in a look-up table. Once a user input is received, the table can be parsed to determine if that particular user input is stored in the table and therefore preprocessed" (page 14 lines 6-8). Banga does not teach or suggest prospectively performing computations before user input is received so that the computations are already processed and available when the user input is received. Since Banga does not teach or suggest deltas including preprocessed computations responsive to user inputs, Banga does not teach or suggest the further limitation of claim 3.

Claim 4 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Banga in view of Sutcliffe. For the reasons provided above, Banga does not anticipate all of the limitations of claim 1 from which claim 4 depends. Sutcliffe does not teach deltas

PA2365US

and also does not teach or suggest retrieving delta configuration page information without having to contact a server side of a configuration system. Accordingly, claim 4 is patentable over the combination of <u>Banga</u> and <u>Sutcliffe</u>. Applicant requests that the Examiner withdraw the rejection of claim 4 under 35 U.S.C. § 103(a).

Claim 5 recites the further limitation that "the updating step is performed by a process that is embedded in the configuration page." The Examiner indicates that <u>Banga</u> teaches this limitation on pages 295-6 (office action page 3). However, Applicant does not find any teaching or suggestion within <u>Banga</u> that a page can include an embedded process that performs updates based on a delta. Since <u>Banga</u> does not teach or suggest pages with embedded processes, <u>Banga</u> does not teach or suggest the further limitation of claim 5.

Claim 6 recites the further limitation that "the delta page information is embedded in the configuration page." The Examiner indicates that <u>Banga</u> teaches this limitation on pages 295-6 (office action page 3). However, Applicant does not find any teaching or suggestion within <u>Banga</u> that a page can include an embedded delta. <u>Banga</u> teaches that deltas are sent in place of sending entire pages when the differences are sufficiently small. Thus, embedding a delta in a page would defeat the purpose of sending the delta. Since <u>Banga</u> does not teach or suggest pages with embedded deltas, <u>Banga</u> does not teach or suggest the further limitation of claim 6.

Independent claim 7, as amended, recites a method for transmitting product configuration information generated by a server side of an Internet-based configuration system to a user side of the configuration system. The method comprises generating a

PA2365US

configuration page, associating delta configuration page information with the configuration page, and transmitting the configuration page along with the delta configuration page information to the user side from the server side.

By contrast, Banga does not transmit the delta information along with a configuration page to the user side from the server side. Instead, deltas are sent as an alternative to sending an entire page, so both are not sent together. In some instances (where the client proxy does not have a cached copy) the server proxy initially sends a cached copy and then later sends a delta after contacting the content provider. Here, because the server proxy must wait for the content provider to return a response to the GET If-Modified-Since request and then make a determination whether to send the delta or the entire new page, transmitting the delta cannot be considered to be performed "along with" the cached page. Thus, Banga does not teach the limitation of "transmitting the configuration page along with the delta configuration page information to the user side from the server side." Applicant therefore requests that the Examiner withdraw the rejections of claim 7, and claims 8-13 depending therefrom, under 35 U.S.C. § 102(e).

Applicant also notes the further patentability of some of the dependent claims that depend from claim 7. Specifically, claim 8 recites the further limitation that "the associating step is performed as part of the generating step." In Banga a delta is determined by the server proxy by comparing versions of a page. At that time, both the prior and new versions of the page have already been generated. The delta can only be associated with the page in Banga, therefore, some time after the page is generated. Accordingly, in Banga the step of associating the delta with the page cannot be performed as part of the step of generating the page. Since Banga does not teach or

PA2365US

suggest performing the associating step as part of the generating step, <u>Banga</u> does not teach or suggest the further limitation of claim 8.

Claim 9 recites the further limitations that "the delta configuration page information is contained in a look-up table and the associating step further comprises organizing the delta configuration page information within the look-up table pursuant to an indexing scheme, and embedding the look-up table in the configuration page." In rejecting claim 9, the Examiner merely refers back to the rejections of claims 5 and 6. However, certain limitations of claim 9 are not found in either claim 5 or 6. For example, neither claim 5 or 6 recites that the delta configuration page information is contained in a look-up table, nor that the associating step further comprises organizing the delta configuration page information within the look-up table pursuant to an indexing scheme. <u>Banga</u> does not teach or suggest using a look-up table to contain the delta information, nor does <u>Banga</u> teach or suggest an indexing scheme for organizing the delta information within a look-up table. Since <u>Banga</u> does not teach or suggest a look-up table nor an indexing scheme for organizing the delta information within a look-up table, <u>Banga</u> does not teach or suggest the further limitations of claim 9.

Claim 10 recites the further limitations that "the delta configuration page information is indexed according to specific user inputs that can be provided from the configuration page, each specific user input being related to a portion of the delta configuration page information." In rejecting claim 10, the Examiner merely refers back to the rejections of claims 5 and 6. However, certain limitations of claim 10 are not found in either claim 5 or 6. For example, neither claim 5 or 6 recites that the delta configuration page information is indexed according to specific user inputs, that the user

inputs can be provided from the configuration page, and that each specific user input is related to a portion of the delta configuration page information. Banga does not teach or suggest indexing delta information according to specific user inputs, that such user inputs can be provided by the cached page, nor that each specific user input is related to a portion of the delta information. For at least these reasons Banga does not teach or suggest the further limitations of claim 10.

Claim 12 adds the same limitation to claim 7 as claim 3 adds to claim 1. Banga does not teach or suggest the further limitation of claim 12 for essentially the reasons provided above with respect to claim 3.

Claim 13 recites the further limitation that the method of claim 7 further comprises "transmitting a process for updating the configuration page with the delta configuration page information to the user side from the server side." However, Applicant does not find any teaching or suggestion in Banga for a process for updating a page, nor for transmitting such a process with the delta information to the client side. Accordingly, Banga does not teach or suggest the further limitation of claim 13.

Independent claim 14, as amended, recites a method for receiving over the Internet product configuration information generated by an Internet-based configuration system. The method comprises requesting a new configuration page and receiving the new configuration page along with delta configuration page information that is associated with the new configuration page. The limitation of receiving the new configuration page along with delta configuration page information that is associated with the new configuration page is essentially the same limitation argued above with respect to claim

PA2365US

7. For essentially the reasons provided above with respect to claim 7, <u>Banga</u> does not teach or suggest receiving a page along with delta information that is associated with the page. Applicant therefore requests that the Examiner withdraw the rejections of claim 14, and claim 15 depending therefrom, under 35 U.S.C. § 102(e).

Independent claim 16, as amended, recites a method for transmitting page information generated on a server side of a network to a client side of that network. The method comprises generating a page, associating delta page information with the page, and transmitting the page along with the delta page information to the client side. The limitation of transmitting the page along with delta page information to the client side is essentially the same limitation argued above with respect to claim 7. For essentially the reasons provided above with respect to claim 7, <u>Banga</u> does not teach or suggest transmitting a page along with delta information that is associated with the page. Applicant therefore requests that the Examiner withdraw the rejection of claim 16 under 35 U.S.C. § 102(e).

Independent claim 17 recites a method for updating a page on a client side of a network without having to contact a server side of that network. The method comprises retrieving delta page information, and updating the page based on the delta page information. Retrieving the delta page information is responsive to the client side receiving a user input that is associated with delta page information available at the client side.

PA2365US

In Banga the client side cannot receive a user input that is associated with delta information available at the client side, as required by claim 17. For the client side to receive such a user input, the delta information must be available at the client side. However, in Banga only two scenarios lead to the use of deltas, and in both scenarios the delta between two versions of a page is computed only after user input (e.g. a URL request) is received by the client side. Thus, in Banga, when user input is received, the user input cannot be associated with the delta information because the delta information has not yet been computed.

Further, Applicant notes that although Banga is not explicit about how a delta is processed once it is sent to the client server, it is clear that the delta is used to update a cached page so that the cached page becomes equivalent to a current page. Since the goal of Banga is to reduce latency, the update must be performed quickly. Once the update is complete, the delta has served its purpose. There is no indication in Banga that the delta persists at the client side once it is no longer needed. Accordingly, the delta of Banga at the client proxy is not "available at the client side."

The preceding analysis treats the client side of Banga as being limited to the client proxy, according to the Applicant's interpretation of the client side and the server side of Banga. However, even if, *arguendo*, the client side is extended to include the server proxy, the analysis remains the same. There is no indication in Banga that the delta persists at the server proxy any longer than necessary to determine whether it is more desirable to transmit the delta or the current page in its entirety. Once transmitted to the client proxy, or once the server proxy determines that the delta will not be transmitted, the delta has served its purpose and does not persist. Accordingly, the delta of Banga at

PA2365US .

the server proxy is also not "available at the client side." Applicant therefore requests that the Examiner withdraw the rejection of claim 17 under 35 U.S.C. § 102(e).

Independent claim18, as amended, recites a method for receiving page information on a client side of a network from a server side of that network. The method comprises requesting a new page and receiving the new page along with delta page information that is associated with the new page. In Banga, as discussed above, delta information is not sent along with pages. In both scenarios either the delta is sent or the entire page is sent, but in no instance is the page sent along with the delta because the delta is sent only when it is more time efficient to send the delta in place of the entire page. Since Banga does not teach or suggest a new page being received along with delta page information, Banga does not anticipate claim 18. Applicant therefore requests that the Examiner withdraw the rejection of claim 18 under 35 U.S.C. § 102(e).

Independent claim 19 recites a computer-readable medium having instructions stored thereon. When the instructions are executed by a processor included on a user side of an Internet-based configuration system, the instructions cause the processor to perform a step of retrieving delta configuration page information in response to the user side receiving a user input that is associated with the delta configuration page information available at the user side. These limitations are essentially the same as the limitations argued above with respect to claim 17. Accordingly, claim 19 is patentable over Banga for essentially the reasons provided above with respect to claim 17. Applicant therefore requests that the Examiner withdraw the rejection of claim 19 under 35 U.S.C. § 102(e).

PA2365US

Independent claim 20, as amended, recites a computer-readable medium having instructions stored thereon. When the instructions are executed by a processor included on a server side of an Internet-based configuration system the instructions cause the processor to perform the steps of the method of claim 7. Accordingly, claim 20 is patentable over <u>Banga</u> for essentially the same reasons provided above with respect to claim 7. Applicant therefore requests that the Examiner withdraw the rejection of claim 20 under 35 U.S.C. § 102(e).

Independent claim 21, as amended, recites a computer-readable medium having instructions stored thereon. When the instructions are executed by a processor included on a user side of an Internet-based configuration system the instructions cause the processor to perform essentially the steps of the method of claim 18. Accordingly, claim 21 is patentable over <u>Banga</u> for essentially the same reasons provided above with respect to claim 18. Applicant therefore requests that the Examiner withdraw the rejection of claim 21 under 35 U.S.C. § 102(e).

Independent claim 24 recites a page update system for updating a page displayed on a client side of a network without having to contact a server side of that network. The system comprises means for performing the method of claim 17. Accordingly, the limitations of claim 24 are essentially the same limitations argued above with respect to claim 17. Thus, claim 24 is patentable over <u>Banga</u> for essentially the reasons provided

above with respect to claim 17. Applicant therefore requests that the Examiner withdraw the rejections of claim 24, and claim 25 depending therefrom, under 35 U.S.C. § 102(e).

Applicant notes the further patentability of dependent claim 25. Claim 25 adds the limitation to claim 24 that the system further includes means for the client side to receive the delta page information from the server side, prior to receiving the user input. In <u>Banga</u>, the client side receives delta information only after a page is requested. Accordingly, <u>Banga</u> cannot teach or suggest means for the client side to receive delta information from the server side prior to receiving the user input.

Independent claim 26, as amended, recites a method for updating a page on a client side of a network. The method comprises receiving delta page information on the client side, and receiving a user input on the client side after receiving the delta page information. The delta page information is retrieved from the client side in response to the received user input. In <u>Banga</u>, the client side receives delta information only after a page is requested. Accordingly, <u>Banga</u> cannot teach or suggest receiving, on the client side, a user input associated with delta information after receiving the delta information on the client side. Applicant therefore requests that the Examiner withdraw the rejections of claim 26, and claims 27-29 depending therefrom, under 35 U.S.C. § 102(e).

Independent claim 30, as amended, recites a method for receiving page information on a client side of a network from a server side of that network. The method comprises receiving, on the client side, the new page along with delta page information that is associated with the new page. The limitation of receiving, on the client side, the new page along with delta page information that is associated with the new page is

PA2365US

essentially the same limitation discussed above with respect to claim 7. For essentially the same reason as provided above with respect to claim 7, Banga does not anticipate claim 30. Applicant therefore requests that the Examiner withdraw the rejections of claim 30, and claims 31, 33, and 34 depending therefrom, under 35 U.S.C. § 102(e).

Applicant also notes the further patentability of some of the claims that depend from claim 30. Claim 31 adds essentially the same limitation to claim 30 as claim 6 adds to claim 1. For essentially the reasons provided above with respect to claim 6, claim 31 is also further patentable over Banga.

Claim 33 adds the limitation to claim 30 that the delta page information is configured to update a plurality of pages, the new page being included in the plurality of pages. The delta information in Banga represents the differences between two versions of the same page. Accordingly, Banga does not teach or suggest delta information configured to update a plurality of pages.

Claim 34 adds the limitation to claim 30 that the user input is used to select the delta page information from a plurality of delta page information available on the client side. Banga does not teach or suggest making selections from a plurality of delta page information available on the client side.

CONCLUSION

Applicant requests a telephonic interview with the Examiner after the Examiner has had an opportunity to consider these remarks. Applicant's representative will contact the Examiner shortly after this Amendment is mailed to arrange for the interview.
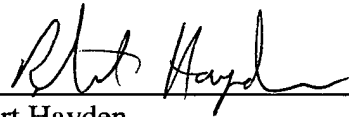
All pending claims are allowable and Applicant respectfully requests a Notice of Allowance. Should the Examiner have questions, the Applicants' undersigned attorney may be reached at the number provided.

Respectfully submitted,

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